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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/900,016	07/09/2001	Koji Yoshida	061807-0137	5249

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EXAMINER

BAHTA, KIDEST

ART UNIT

PAPER NUMBER

2125

DATE MAILED: 01/28/2003

#8

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/900,016

Applicant(s)

YOSHIDA ET AL.

Examiner

Kidest Bahta

Art Unit

2125

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 and 42-64 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-18, 42-50, 53-61 and 64 is/are allowed.
- 6) ☐ Claim(s) 51, 52, 62 and 63 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☒ Certified copies of the priority documents have been received in Application No. 09/023,204.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 3, 5.
- 4) ☐ Interview Summary (PTO-413) Paper No(s) ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: .

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in-

(1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effect under this subsection of a national application published under section 122(b) only if the international application designating the United States was published under Article 21(2)(a) of such treaty in the English language; or
(2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that a patent shall not be deemed filed in the United States for the purposes of this subsection based on the filing of an international application filed under the treaty defined in section 351(a).

2. Claims 51-52 and 62-63 are rejected under 35 U.S.C. 102(e) as being anticipated by Uzawa et al. (U.S. 6,333,786).

Regarding claims 51-52 and 62-63, Uzawa discloses a first step of detecting at least one of a plurality of first measurement marks provided associated with a predetermined shot area out of the shot areas (column 1, lines 37-49); a second step of detecting at least one of a plurality of second measurement marks provided associated with a shot area different from the predetermined shot area, before detecting all of the first measurement marks (column 8, lines 26-42); a third step of detecting or a more remaining first measurement marks which are not detected in said first step, after the second step and a plurality of shot area are provided the substrate (column 10, lines 20-39), a detecting device (23) that detects at least one of a plurality of first measurement marks provided associated with a predetermined shot area out of the shot areas

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(column 2, lines 4-17); a control device (Fig. 2, element CU) electrically connected to the detecting device (Fig. 2, element 23), that control the detecting device to detect at least one of a plurality of second measurement marks associated with a shot area different from the predetermined shot area, before detecting all of the first measurement marks (Fig. 3A and 3B; column 3, line 55-column 4, line 5).

Allowable Subject Matter

3. Claims 1-18, 42-50, 53-61 and 64 are allowed

The following is an examiner's statement of reasons for allowance:

With respect to independent claims 1, 12 and 15, the allowability of the claims resides, at least in part, in that the closest prior art of record Nishi (US patent 5,243,195) does not suggest or disclose either alone or combination, the claimed an arithmetic section for generating a group of a plurality of executable movement sequences out of a group of movement sequence candidates, each indicating a measurement order of the plurality of alignment marks, and selecting a movement operation between the plurality of alignment marks within the shortest time out of the group generated in combination with other elements and features of claimed invention.

With respect to independent claims 42, 49, 50, 55, 61 and 64, the allowability of the claims resides, at least in part, in that the closest prior art of record Dueck (US patent 5,200,677) does not suggest or disclose either alone or combination, the claimed a determining device which determines an order for positioning each of the areas to be

detected into the predetermined detecting filed by using at least a nearest neighbor method, and Lin and Kernighan's approach, a K-OPT method, an evolutionary computation method and a combination thereof in combination with other elements and features of claimed invention.

With respect to independent claims 53 and 54, the allowability of the claims resides, at least in part, in that the closest prior art of record Nishi (US patent 5,243,195) does not suggest or disclose either alone or combination, the claimed a transferring step of controlling a relative position between each of the shot area on the substrate and the predetermined pattern, base on the detected results in the detection of alignment mark, and sequentially transferring the predetermined pattern onto the shot area in combination with other elements and features of claimed invention.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

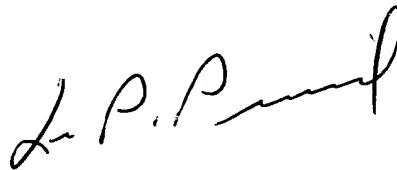
5. Any inquiry concerning communication or earlier communication from the examiner should be directed to Kidest Bahta, whose telephone number is (703) 308-6103. The examiner can normally be reached on M-F from 7:30 a.m. to 4:00 p.m. EST.

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If attempts to reach the examiner by phone fail, the examiner's supervisor, Leo Picard, can be reached (703) 308-0538. Additionally, the fax phone for Art Unit 2125 is (703) 308-6306 or 308-6296. Any inquiry of a general nature or relating to the status of this application should be directed to the group receptionist at (703) 305-9600.

Kidest Bahta

January 17, 2003

A handwritten signature in black ink, appearing to read "L. Picard", written in a cursive style.

LEO PICARD
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100